

## Ghella and ACCIONA complete breakthroughs at second Broadway Subway project station

Ghella and joint venture partner, ACCIONA, celebrate a second successful TBM breakthrough at the future Broadway-City Hall Station.

Vancouver, British Columbia - Phyllis, the second of two massive tunnel-boring machines that are constructing twin tunnels for the Broadway Subway Project, broke through to the future Broadway-City Hall Station on Friday May 26, marking another important milestone for this transformational rapid transit project.

Named after Phyllis Munday, a passionate mountaineer best known for exploring and documenting the Coast Mountains and Mount Waddington, Phyllis has excavated more than 1,350 metres of tunnel and installed 884 liner rings since departing from the future Great Northern Way-Emily Carr Station in November.

The new Broadway-City Hall Station is the deepest station along Broadway at more than 20 metres underground, so that the Millennium Line extension can be constructed underneath the active Canada Line. The station stretches 210 metres over two blocks under Broadway between Alberta and Cambie streets to provide space for a crossover section of track where trains can switch directions when needed. The station will have additional capacity for the expected volume of transit users, including passenger connections being built underneath Cambie Street, for people to easily transfer between the north-south Canada Line and the eastwest Millennium Line.

Like Elsie, Phyllis will now undergo planned maintenance at Broadway-City Hall Station before continuing her tunnelling to her third station stop, Oak-VGH.

While the twin TBMs tunnel deep below the Broadway corridor, construction continues to be made along the alignment above and below grade. Earlier this month at the Broadway-City Hall Station site, a pedestrian bridge was installed to reconnect the south sidewalk between Alberta and Yukon streets. Combined with the traffic decks, pedestrian bridges keep people moving and preserve access to this important transportation and retail corridor while work is carried out below.

Progress also continues to be made at the 700-metre-long elevated guideway. Crews are installing the deck on top of the completed girders that connect the 21 columns between VCC-Clark Station and the future Great Northern Way-Emily Carr Station.

Founded in 1894, we are a global reality of primary importance in the construction of large public projects. Specialized in underground excavation and tunneling works, we realize important infrastructures such as subways, railways, highways, and hydraulic projects. Over the course of 150 years, we have built over 130 tunnels and connected more than 1,000 km of highways, railways, and subways. We believe in a business model focused on leaving a better world to the next generations. We build to the highest quality, innovation and sustainability standards, utilizing advanced technologies and state-of-the-art construction methods, supported by a continuous process of staff training. We aid economic growth and social development in all the territories in which we operate.



Station construction is also ongoing at all six locations with activities ranging from excavation, concrete pours, waterproofing, rebar installation and station wall construction.

The Broadway Subway Project will extend the Millennium Line 5.7 kilometres from VCC-Clark Station to West Broadway and Arbutus Street, providing people with fast, convenient SkyTrain service along the Broadway corridor. The corridor is home to B.C.'s second-largest jobs centre, world-class health-care services, an emerging innovation and research hub, and growing residential communities.

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